

## WHAT IS CLAIMED IS:

1. A process for inhibiting the high temperature corrosivity of an organic acid-containing petroleum stream providing a corrosion prone metal surface to be exposed to such organic acid-containing stream with an effective, corrosion-inhibiting amount of phosphorous acid.
2. The process of claim 1, wherein providing of the phosphorous acid is carried out in the presence of the acid-containing petroleum stream.
3. The process of claim 1 or 2, wherein the amount of phosphorous is an effective amount of up to 1000 wppm.
4. The process of claim 1, wherein the process is carried out at a temperature ranging from about ambient to below the cracking temperature of the oil.
5. The process of claim 1, wherein high temperature is from 200°C to 420°C.
6. The process of claim 1, wherein the metal is an iron-containing metal.
7. The composition produced by the process of claim 1.